CIVIL DISTRICT COURT
PARISH OF ORLEANS
STATE OF LOUISIANA

GLORIA SCOTT AND	*	
DEANIA JACKSON	*	
	*	NO. 96-8461
VERSUS	*	DIVISION "I"
	*	SECTION 14
THE AMERICAN TOBACCO	*	
COMPANY, INC., ET AL.	*	
	*	

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Transcript of proceedings before The Honorable Richard J. Ganucheau, Judge Pro Tempore, Civil District Court, Parish of Orleans, State of Louisiana, 421 Loyola Avenue, New Orleans, Louisiana 70112, commencing on June 18, 2001.

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Thursday Afternoon Session
May 8, 2003
1:33 p.m.

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I N D E X

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DAVID E. TOWNSEND, Ph.D.

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P R O C E E D I N G S

THE BAILIFF:
All rise for the jury, please.
(Whereupon the jury joins the proceedings at this time.)
THE MINUTE CLERK:
All rise, please. Recess is over. Court will come to order. You may be seated.
THE COURT:
Good afternoon.
Mr. Bencomo, are you ready to continue?
MR. BENCOMO:

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Yes, Your Honor. Thank you, Your Honor.
Good afternoon, ladies and gentlemen.
THE JURY:
Good afternoon.
MR. BENCOMO:
Good afternoon, Your Honor, Dr. Townsend.
THE WITNESS:
Good afternoon.
Carl, would you be kind enough to put up the last document that we had on the screen before we broke for lunch, please?
And that is the October 3rd, 1989 meeting regarding new tobacco products that we had up on the screen before, Your Honor.
May we publish?
THE COURT:
If it's AZS-000228?
MR. BENCOMO:
Yes, Your Honor.

THE COURT:
You may publish it.
MR. BENCOMO:
Thank you.
And would you please go to the fourth -- Page 4. You've got it highlighted already.

CROSS-EXAMINATION

BY MR. BENCOMO:
Q. Sir, do you disagree with the statement that the "If you can't quit, smoke Merits" campaign implies that low-tar, low-nicotine cigarettes were safer than traditional cigarettes, do you disagree with that statement?
"Yes" or "No"?
A. Well, I mean, I'm not sure I can answer that "Yes" or "No" because I'm not familiar -- I've never seen a campaign called "If you can't quit, smoke Merits."
MR. BENCOMO:
Very well.
Carl, would you please go to Page 3 of that document. And would you highlight the last paragraph.
And would you please publish that for the benefit of the jury.
EXAMINATION BY MR. BENCOMO:
Q. Dr. Townsend, do you recall that Mr. Belasic asked you a question about that particular paragraph yesterday?
A. Yes, I generally remember that.
Q. And, as a matter of fact, what you did was to read the first line. But the rest of the paragraph

was not highlighted nor did you read from it or address any issues with the jury.
I'm going to ask if you would be kind enough to read that document or that paragraph and ask that the jury do the same before I ask you a question.

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A. (Witness reviews document.)
Q. And the last sentence of that paragraph -- And, by the way, the paragraph deals with the Premier cigarette; is that not correct?
A. Yes, it does.
Q. And it says, does it not, "It is easier to make a case against a product that is obviously being aimed at youth"; is that not correct, sir?
A. That's what that last sentence says.
Q. And, sir, it is your testimony, as the representative of R. J. Reynolds, that Reynolds does not aim or target children; is that correct, sir?
A. That is clearly my testimony.
R. J. Reynolds does not target youth, we do not encourage youth to smoke, we don't want youth or underaged people to smoke. We don't want underaged people to smoke because, if they do, it calls into question everything we're trying to do in marketing to adults.
Q. Sir, your company does not develop a single drug that saves lives; does it?
A. In what sense? You mean in the pharmaceutical industry? We're not a pharmaceutical company.
Q. You do not manufacture a single drug that saves lives. You're not a pharmaceutical company; correct?

MR. GAY:
Objection. Repetitious.
THE COURT:
Sustained. Next question, please.
EXAMINATION BY MR. BENCOMO:
Q. You are aware, are you not, of the CDC statistics that show that 400,000, 400,000 Americans die each year as a result of cigarette smoking; is that not correct, sir?
A. I've seen some various statistics. That's one of them.
Q. And you've seen statistics, have you not, that the CDC, the Centers for Disease Control, shows, also, that over 10,000 of our citizens here in Louisiana die as the result of smoking products such as yours and those of the defendants'; is that not correct, sir?
A. I don't know that.
Q. You don't know how many people your company's killed in Louisiana; is that correct?
MR. BELASIC:
Objection. Argumentative.
THE COURT:
Sustained. Next question, please.
EXAMINATION BY MR. BENCOMO:
Q. Sir, did you ever meet my father?
MR. WILLIAMS:
Objection.
MR. GAY:
Objection. Relevance.
THE COURT:
Sustained.

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MR. BENCOMO:
I don't have any other questions of this witness, Your Honor.
THE COURT:
Redirect?
MR. SHOLES:
Your Honor, may we approach?
THE COURT:
Yes.
(Whereupon a bench conference is held at this time as follows:)
THE COURT:
Mr. Sholes?
MR. SHOLES:
Your Honor, I'm afraid at this time I must move for a mistrial based upon the fact that Mr. Bencomo has, unfortunately, interjected a personal issue into the case which has given the jury an impression that his father has been afflicted by something related to this case and something that we cannot even question about. The implication alone is something that we cannot deal with. And for that reason, we've been unduly prejudiced and must move for a mistrial.
MR. BENCOMO:
Your Honor, how can there be any implication of that? If he had said that he had met my father, I had a series of questions to ask him. He said he hadn't, and I shut it down. Where is there some implication? That's just Mr. Sholes' --

THE COURT:
Let's read it back.
MR. SHOLES:
Your Honor, the previous question --
THE COURT:
Just a moment. Now, Mr Sholes.
MR. SHOLES:
The previous question implied that someone had died in Louisiana, and then he proceeded to talk about his father. There is absolutely no way that we can correct that.
MR. BENCOMO:
Judge, here's the bottom line. I asked him about the 400,000; he acknowledged that. Then I asked him if he knew how many people died in Louisiana; he said, "No." I asked him if he -- So I went on to another subject. I asked him if ever knew my father. I had a series of questions to ask him about that.
THE COURT:
You asked him if he knew that his products and the products of the other defendants had killed ten thousand people in Louisiana, I think.
MR. BENCOMO:
Right.

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THE COURT:
And then the question was: You don't know how many people your company's products killed in Louisiana?
MR. BENCOMO:
His answer was --

THE COURT:
-- "I don't."
MR. BENCOMO:
Right.
THE COURT:
The next question: Did you ever meet my father?
MR. BENCOMO:
Right.
THE COURT:
That's the series of questions. And --
MR. SHOLES:
There is not even a good-faith basis to ask such a question as to whether or not he met his father. The only intent or purpose of it is to send that implication.
MR. BENCOMO:
Judge, I was going to ask questions about the product, okay? And there's no reason why I should have been precluded here.
THE COURT:
What's your justification for interjecting a personal note into it in your questioning? I think that's the gravamen of this objection and motion for a mistrial.
MR. BENCOMO:
Because there are over a million and a half smokers in this community. And if this gentleman who's a designer and all that can --
THE COURT:
Did your father, in fact, die of a

smoking-related disease?
MR. BENCOMO:
No, I'm not saying that he did or he didn't because I didn't go there. You see what I'm saying? I mean, the reason --
THE COURT:
Well, then what's the reason for the question?
MR. BENCOMO:
Because I was going to get -- I had a whole other series of questions to ask him, if he had. And I don't know --
THE COURT:
If he had met your father?
MR. BENCOMO:
Yes.
I mean, I don't know whether he did or he didn't, okay? I have no idea whether he did or didn't. Had he said that he did, all

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right, then --
THE COURT:
If he had met your father?
MR. BENCOMO:
Yes.
THE COURT:
Why in the world would he have met your father?
MR. BENCOMO:
Judge, there is a reason why he may have met my father. And I didn't know what the answer would be, okay? I had -- I mean, just --

MR. LONG:
I think we need the reason on the record why he thinks he met his father to see if there's a good-faith basis to his question.
MR. BENCOMO:
No, I didn't think. I didn't think. I asked him a question. When he said that he didn't, I just shut it down. Because the man keeps on going about the fact that he's not aware of the statistics, and I was going to ask him that. I was going to ask him whether --
THE COURT:
Well, I'm going to take the motion under advisement and think about it. I don't have to grant it or deny it at this point. I'm going to think about it.
MR. LONG:
And I would request that if Mr. Bencomo had a reasonable basis to believe that this gentleman may have met his father, that he put it on the record.
THE COURT:
I may request that he do that, but I'm not going to do it at this point.
Your motion for mistrial is under advisement.
(Whereupon the bench conference is concluded at this time.)
THE COURT:
Mr. Belasic, do you wish to conduct redirect?

MR. BELASIC:
Yes, Your Honor.
THE COURT:
Proceed.

REDIRECT EXAMINATION

BY MR. BELASIC:
Q. Dr. Townsend, you've been here a long time. I'll try to make this as brief as possible and hit on a few of the issues that plaintiffs' lawyer asked you about.
Do you remember the plaintiffs' lawyer asked you a question about whether the Surgeon General

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actually designed cigarettes?
A. Yes, I remember that.
Q. The Surgeon General does not actually design cigarettes; correct?
A. Not directly, no, of course not.
Q. But the Surgeon General does evaluate the design of cigarettes that your company and other companies make; correct?
A. The Surgeon General has evaluated cigarette design modifications and some of the changes in cigarettes over the years, he's done that on several occasions.
Q. And do you remember the 1979 Surgeon General's chart that we put up for the jury that had all of the pluses when they rated cigarette design?
A. Of course, I remember that.
Q. Was that an evaluation of your company's and other companies' cigarette designs by the Surgeon General?
A. Yes, of course.

Q. And what was the overall evaluation of the effect of the changes in cigarette design that your company has made and the other companies have made?
A. The overall evaluation from that chart that the Surgeon General had was that the design variables, the design modifications that we've actually implemented in the marketplace have reduced tar and nicotine yield.
And many of those design variables or tools, techniques, have had major reduction effects on tar and nicotine. And, moreover, that with some of those, there's been major reductions in biological activity as well.
Q. And didn't the Surgeon General publish an entire one of his reports on the issue of cigarette design?
A. He did. It was in 1981. The title of that report was The Changing Cigarette. It focused on cigarette design and what's happened with cigarette modifications over the years. Also, it made recommendations on directions for the future.
Q. And did you follow those recommendations of the Surgeon General? Did your company follow those?
A. Yes, very definitely.
Q. Did the industry, as a whole, follow the recommendations of the Surgeon General on cigarette design?
A. Yes.
Q. Now, did lawyers, the lawyers Mr. Bencomo talked about, stop you or your company from following on those recommendations?
A. Of course not.

Q. Now, you told this jury several times when Mr. Bencomo was asking questions that you personally believe that it is more likely than not that smoking causes lung cancer; is that right?
A. I do believe that, yes.

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Q. Have lawyers tried to interfere with your belief?
A. No.
Q. Have lawyers told you that you can't say that to these ladies and gentlemen?
A. Absolutely not.
Q. The plaintiffs' lawyer talked about the former R & D director, Dr. DiMarco. And you told the jury that Dr. DiMarco believed that smoking may, in fact, cause lung cancer.
A. That's my interpretation of Dr. DiMarco's beliefs, yes.
Q. Did Dr. DiMarco keep his job?
A. Actually, he was the head of R & D for much longer than, I think, anybody else that I can remember.
Q. Now, has anyone ever told you that your personal belief that it is more likely than not that smoking causes lung cancer somehow interferes with your job or your job performance?
A. It does not interfere with my job, my job performance or my ability to do good work at Reynolds.
Q. Now, isn't it a fact that on Reynolds' website right now, for the public to see, it says that cigarette smoking may contribute to cause lung cancer and the other diseases that we've talked

about?
A. Yes.
Q. Now, did lawyers try to stop that website from going up?
A. No.

In fact, that website language was developed based on scientists at R & D, at Research & Development, looking at all the science and trying to evaluate and come to some consensus of what all that meant. And that is our consensus.

We have some people at R & D that believe definitely that cigarette smoking absolutely causes cancer; we have some scientists who believe that, much like me, that we need to know the mechanism, that it probably does or may cause cancer or is more likely than not.

There are a variety of different opinions based on the science. But the language on that website is an R & D consensus. And nobody from R. J. Reynolds' management, lawyers or anyone else influenced that language.

Q. Now, you've been asked questions about this biological mechanism and some of the statistics, the epidemiology. Is the idea that epidemiology or the statistics alone insufficient to prove causation, is that something that you made up?
A. No.

In fact, epidemiologists have made that clear over the years. Epidemiology is the statistics of association, looking at certain diseases and trying to decide what lifestyles or exposures may correlate with certain diseases. It was never intended by

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epidemiologists to try to establish causation. It's one very important step in the process of causing -- of determining causation, however.
Q. Has the Surgeon General ever said anything about whether epidemiology or statistics would be enough to make a scientific conclusion about causation?
A. The Surgeon General has spoken to that, yes.
Q. And what has the Surgeon General said?
A. The Surgeon General said that it's generally considered that statistics or epidemiology alone cannot prove causation.
Q. And, yet, the Surgeon General has gone on to conclude that smoking causes cancer; correct?
A. Yes, he has.
Q. And is that a judgment call?
A. It is a judgment call. It's less rigorous than most -- than many scientists would look at in deciding causation. It is judgment.
Q. Now, you said that you think you need a mechanism to absolutely prove that smoking does cause cancer?
A. Yes.
Q. If you had a biological mechanism, some explanation of how smoking causes cancer, would that affect your job as a cigarette designer?
A. I think it would be a great help to our job in reducing the risks. Because if we know the mechanism, then we know how cigarette smoke can cause cancer and certain other diseases. And if we know how it happens, then we know what to go after to reduce or eliminate in smoke or in other ways

change the cigarette or cigarette smoke to reduce risk.
Q. Now, right now, has the public health community that's reached that judgment call on causation, have they given you some sort of formula that would make an absolutely safe cigarette?
A. No, they haven't.
Q. Have they told you where to go to get one?
A. Not really, no.
Q. Is that something that you have to find on your own?
A. Well, we do.

Scientists in my department, at my competitor companies and some scientists at universities actually go out and try to decide, okay, why do we see what we see in the biology and in the epidemiology and other areas? And then tries to define directions to go.

But the government has not come to us and said, "Here's the direction you need to take." Or the government has not even been able to say, "Here's how you would evaluate and decide whether a product is safer or not."
Q. Now, this morning, when you were asked questions by plaintiffs' lawyer, there was some discussion of this phrase "The poison is in the

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dose." What did you mean by that?
A. Well, I brought that up.
"Poison is in the dose," I think I was referring to Dr. DiMarco. That was one of his favorite phrases. "Poison is in the dose" is really the basic tenet of toxicology. And, in fact, it's a

very old phrase.
And toxicology is based on the poison is in the dose, which means the higher the exposure or the higher the concentration that's received by a person increases the potential for damage, for risk, for disease, for, you know, for a number of things.
It is, in fact, the central core of toxicology. It really means that if something -- if exposure can cause risk, then less ought to be better. And less ought to be better is the operating -- is an operating principle that we work on at Reynolds to reducing the levels of various chemical constituents in tar to try to reduce the risks; reducing tar exposure and nicotine exposure to smokers through these general reduction techniques; by reducing the tar exposure to smokers through the Russell approach, that is, maintaining a medium nicotine level and trying to reduce the tar level as much as possible; and by developing Premier and Eclipse to reduce the overall exposure.
Less ought to be better is one of our most important operating principles.
Q. Let's talk about one of the studies that plaintiffs' lawyers showed you about the effect of reducing tar and nicotine.
MR. BELASIC:
And if we could call up Exhibit 0606.02. Your Honor, it's been admitted. May we publish the first page?
THE COURT:
You may publish it.
EXAMINATION BY MR. BELASIC:

Q. Dr. Townsend, you see that this is the National Cancer Institute monograph that you were questioned about today?
A. That's what this chart shows. Or says.
Q. All right. And do you remember that the plaintiffs' lawyers showed you one of the conclusions from one of the chapters?
A. Yes, I remember that.
Q. Do you remember that he said that it proved that low-tar cigarettes didn't reduce risk?
A. Yes.
Q. And do you remember what you told him was the reason you disagreed with that conclusion in that particular chapter?
A. I remember.
Q. Why?
A. The conclusion is wrong because even within Monograph 13 in Chapter 4, the Chapter 4 "CONCLUSIONS," the conclusions are that the

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epidemiology for low-tar cigarettes shows less risk for smokers for lung cancer, not for certain other diseases but for lung cancer, there is a risk reduction moving to lower tar.

The conclusion, the overall conclusion in the report was there's no benefit for lowering tar. But the epidemiology is there for lung cancer, maybe not for certain other diseases. And if the epidemiology shows reduced risk, then that's what it is. There is reduced risk for smokers of lower tar cigarettes.

Q. Now, when you responded to plaintiffs' lawyer this morning, did you specifically mention that Chapter 4 had those conclusions?

A. Yes.

Q. And did plaintiffs' lawyer show the jury what Chapter 4 of this document concluded?

A. No.

Q. Well, let's look at it now.

MR. BELASIC:
Your Honor, may we publish Page 146?
THE COURT:
You may publish it.
MR. BELASIC:
And may I hand the witness a hard copy?
THE COURT:
Yes.

EXAMINATION BY MR. BELASIC:

Q. Dr. Townsend, is this a full version of Monograph 13?

A. Yes, it is.

Q. Can you confirm for us that Page 146 is, in fact, the "CONCLUSIONS" of Chapter 4 that you told plaintiffs' lawyer about?

A. Yes, it is.

MR. BELASIC:
Could we highlight Conclusion Number 5?

And blow it up, please, Bert?

EXAMINATION BY MR. BELASIC:

Q. And, Dr. Townsend, could you read that conclusion for us here today?

A. Sure.

Number 5, "Epidemiological studies have not consistently found lesser risk of diseases, other than lung cancer, among smokers of reduced yield cigarettes. Some studies have found lesser risks

of lung cancer among smokers of reduced yield cigarettes. Some or all of this reduction in lung cancer risk may reflect differing characteristics of smokers of reduced-yield compared to higher-yield cigarettes."

Q. Now, Chapter 4 is a pretty long chapter in that book; isn't it?

A. Yes.

Q. And doesn't Chapter 4 review the scientific studies where they measured the cancer death rate of people who smoked these low-tar cigarettes?

A. It reviews the epidemiology of smokers of

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high-tar and low-tar cigarettes.
Q. And, in fact, isn't there a chart of virtually every such study that's been done that's contained in Chapter 4?
A. There is.
And virtually every one of those studies shows a reduction in risk for smokers of low-tar cigarettes.
Q. And that's not the chapter that plaintiffs' lawyer asked you about?
A. That's correct.
MR. BELASIC:
We can take that down, Bert.
Could you put up AZS-000228, which we just had on the screen a few minutes ago?
Your Honor, may we publish the first page?
THE COURT:
You may publish it.
EXAMINATION BY MR. BELASIC:

Q. Dr. Townsend, do you remember that you were just being asked questions about this document by plaintiffs' lawyer?
A. Yes.
Q. And this is the government meeting at the Office of Smoking and Health on various alternative cigarette designs?
A. Yes.
Q. And one of the cigarette designs that they discussed there was Premier --
A. That's correct.
Q. -- is that correct?
Now, Monograph 13, that scientific study, it did not measure the effect of Premier on cancer risk; did it?
A. No.
Q. This document does talk about the government's view of what effect Premier had on cancer risk; correct?
A. This document does talk about the participants who were representing various government agencies about the relative risks of Premier.
Q. And doesn't this document say that the participants commented that Premier appeared to significantly reduce the risk of lung cancer?
A. They did.
Q. Now, did the government go out and print up a monograph extolling the virtues of Premier?
A. No, of course not.
Q. Well, in fact, doesn't this very document say that what the government was trying to do was

preparing to ban the cigarette?
A. This document does say that.
Q. And was there a lawyer present at that meeting, that same Judith Wilkenfeld that Mr. Bencomo was asking you about?

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A. Judy Wilkenfeld is a lawyer, she was present at that meeting.
Q. Now, I've asked you about the government lawyers. Were there any tobacco lawyers either at your firm -- I mean, at your company or at other firms that tried to ban Premier?
A. No.
Q. Just the government; right?
A. The government and public health officials.
MR. BELASIC:
You can take that down, Bert. Thank you very much.
EXAMINATION BY MR. BELASIC:
Q. One of the first things that the plaintiffs' lawyer asked you about was that you left a summer job off your resume'.
Do you remember that?
A. Yes.
Q. How long ago was that summer job?
A. Oh, gee, I would say '68, '69, thereabouts.
Q. So -- what? -- 34, 35 years ago?
A. A long time.
Q. And plaintiffs' lawyer brought out your age, so I won't be afraid to say it. You're a 55-year-old senior executive at a big company; correct?
A. That's right.

Q. And does the fact that you left a summer job 35 years ago off your current resume' have anything to do with your testimony to these ladies and gentlemen?
A. Absolutely not.
Q. What was the summer job you had before the one plaintiffs' lawyer asked you about?
A. I was a construction -- I'm sorry, I was a carpenter's assistant. And we were building a hospital in Chapel Hill, North Carolina.
Q. Did you put that on your resume'?
A. No, of course not.
Q. Now, plaintiffs' lawyer asked you about why your testimony was consistent from case to case.
Do you remember that?
A. Yes.
Q. Is it true, is what you tell juries consistent from trial to trial?
A. Well, it is consistent. And I think one of the key reasons that the testimony is so much the same or so similar is because the issues that come up in various trials are the same, whether it's, you know, added ammonia or the involvement of lawyers or whatever.
They're all the same issues and so the same issues come up, the testimony is pretty much the same. And it turns out that plaintiffs' attorneys and defense attorneys also ask me pretty much the same questions.
Q. Okay.
A. And the other thing is it sounds the same because, really, the facts don't change.

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Q. Well, do you work from a script?
A. No, I don't.
Q. Do you need a script to tell these ladies and gentlemen what R. J. Reynolds has done in the areas of cigarette design?
A. No, I don't.
Q. Do you need a script to tell these ladies and gentlemen what the science behind your decisions for cigarette design have been?
A. Of course not.
Q. Now, do the facts change depending on what plaintiffs' lawyers or what plaintiffs decide to sue your company?
A. Not usually. No, the facts don't change.
Q. Does the science behind the cigarette designs that you talk about, does that change because you're in a different courtroom or you have different lawyers?
A. The science doesn't change, what Reynolds has actually done doesn't change, what my competitors have done doesn't change. It doesn't change.
Q. The facts are the facts; aren't they?
A. Yes.
Q. And the truth is still the truth; right?
A. The truth stays the same.
Q. And have you told these ladies and gentlemen of the jury the truth this week?
A. Yes, I have.
MR. BELASIC:
Thank you for coming. And I don't have any other questions.
THE WITNESS:

Thank you.
THE COURT:
You may step down.
THE WITNESS:
Thank you, Your Honor.
The next witness for the defense?
MR. COPLEY:
Yes, Your Honor.
Good afternoon, ladies and gentlemen.
THE JURY:
Good afternoon.
MR. COPLEY:
We're going to show you a video deposition this afternoon. And I promise it won't be as long as it was last Friday, I promise that.
This afternoon we'll show you the deposition of Dr. Alexander Spears. Dr. Spears started as a research chemist with Lorillard Tobacco Company and finished up as Chairman of the Board when he retired.
As Dr. Townsend told you yesterday, Dr. Spears died a couple of years ago, so we have to watch him via videotaped deposition.
We saw some of Dr. Spears' deposition during plaintiffs' case, so you may remember

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him.
The depositions that you will hear from are one taken in this case on November 17th, 2000; one taken in a case called Blue Cross/ Blue Shield, March 23rd, 2000; and one taken in the State of Texas case on July 24th,

1997. They're all put together. It's about an hour and a half.
THE COURT:
Proceed.
(Whereupon the above-referenced videotape is played back at this time as follows:)
QUESTION: Would you please state your name for the jury, please?
ANSWER: Alexander White Spears, III.
QUESTION: Okay. And you are a Ph.D.; correct?
ANSWER: That is correct.
QUESTION: All right. I will refer to you as Dr. Spears then throughout this deposition.
Dr. Spears, let me start off by asking you what is your present title or position with Lorillard Tobacco Company?
ANSWER: My position is Chairman of the Board.
QUESTION: What was your salary for the year 1999?
ANSWER: Approximately 700,000 dollars.
QUESTION: And would it be fair to say that your compensation for the year 2000, your salary for the year 2000 is also 700,000 dollars?
ANSWER: That's correct.
QUESTION: Would you consider yourself an expert in oncology?
ANSWER: I wouldn't consider myself an

expert, but I consider myself knowledgeable.
QUESTION: Knowledgeable about oncology?
ANSWER: Yes, depending on specifically what you mean. Oncology is a very large subject.
QUESTION: Have you ever taught any classes on oncology?
ANSWER: No.
QUESTION: Do you have a degree in oncology?
ANSWER: No.
QUESTION: Within the past ten years, have you conducted any cancer research?
ANSWER: No.
QUESTION: So would it be fair to say that since the sixties or seventies, you have not acted as a peer reviewer for a peer-reviewed journal?
ANSWER: That's correct.

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QUESTION: Within the past ten years, have you personally conducted any research using spectroscopy or chromatography to determine DNA or cell mutation by virtue of exposures to chemical compounds?

ANSWER: No, I have not worked in the laboratory in the last ten years.

QUESTION: You testified or your C.V. indicates that you published a number of articles -- and it's on Page 6 of your C.V. -- you published a number of articles while you were employed by Lorillard Tobacco Company?

ANSWER: That's correct.

QUESTION: Do you need to seek prior approval of your superiors in order to publish these articles?

ANSWER: I did when I first joined Lorillard in that I reported to someone in the research organization. And they would review articles, certainly comment, and indicate whether they thought they were publishable articles.

QUESTION: Did you ever submit an article for review to your superiors at Lorillard that was recommended that you not publish them?

ANSWER: No.

QUESTION: Would it be fair to say that every article that you wanted to publish while you were employed by Lorillard Tobacco Company was, in fact, published?

ANSWER: That's correct.

QUESTION: Would you consider yourself, Dr. Spears, to be an expert in addiction?

ANSWER: No, I am not an expert in addiction. I think I'm knowledgeable.

QUESTION: Have you ever conducted research into the efficacy of nicotine patches or gum?

ANSWER: No, I have not.

QUESTION: Have you ever conducted research exploring the addictive properties of nicotine?

ANSWER: No, I have not.

QUESTION: Let's mark for the record "Spears Exhibit 4."

Dr. Spears, have you seen this document before?

ANSWER: I don't think so.

QUESTION: If you turn to the last page, Page 4 of the document --

ANSWER: Yes.

QUESTION: -- it indicates in the bottom Arthur J. Stevens.

ANSWER: Yes.

QUESTION: Who is Arthur J. Stevens?

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ANSWER: He was a former Vice-President and General Counsel for Lorillard.
QUESTION: And the first page indicates "American and other companies dismayed at direction of CTR research."
Do you know if in -- on or about or in and around March 1978 Lorillard was dismayed at the direction of CTR research?
ANSWER: I remember from time to time discussions of CTR and CTR's research.
QUESTION: Do you recall in or around the 1978 time frame Lorillard being dismayed at the direction of CTR research?
ANSWER: I think from time to time Lorillard was critical in the sense of whether there ought to be additional research and other types of research, contract versus grant activities.
I don't remember the specific time periods. But from time to time, we had --

questions were raised, yes.
QUESTION: Isn't it true that some of the questions that Lorillard raised with respect to CTR research was criticism that CTR researchers were determining causation between smoking and various forms of cancer?
ANSWER: That statement is here in the first paragraph, but I don't recall that being a Lorillard position.
QUESTION: From 1990 to 1999, you were on the Executive Board of CTR; is that correct?
ANSWER: From what period again?
QUESTION: From 1990 to 1999.
ANSWER: Yes, I was on the Board of Directors.
QUESTION: It indicates on Page 2 of your expert report that you served as an advisor to the National Cancer Institute from 1968 to the late 1970s?
ANSWER: That is correct.
QUESTION: Was that -- When you were serving in your capacity as an advisor, was that in connection with the National Cancer Institute's Tobacco Working Group?
ANSWER: That is correct.
QUESTION: Would it be fair to say that you acted as an advisor to the Tobacco Working Group from its inception to its termination?
ANSWER: Yes. I think I missed one meeting, which was the very first meeting.

QUESTION: And what is your expert opinion about the work that was conducted by the Tobacco Working Group?
ANSWER: The quality of the work, the conclusions and -- conclusions of the work

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and, I guess, significance of the work.
QUESTION: What is your opinion regarding the quality of the work?
ANSWER: I think it was work of high quality. State-of-the-art scientific investigations at the time, however, used a bioassay for tumorigenesis that has been criticized as probably not relevant to man. It is, however, the only bioassay that was available.
I have opinions on their attempts to develop other bioassays and the results. These are particularly inhalation bioassays. As I say, I have conclusions, overall conclusions of the work.
QUESTION: What is your opinions about the animal inhalation bioassays that the Tobacco Working -- relating to the Tobacco Working Group?
ANSWER: That they all failed to produce all the efforts, which were very high-quality efforts, failed to produce tumors in the lungs of animals that could be used for bioassay purposes of a tumorigenic response. This was true -- It's true of dogs that were attempted, it's true of rats, the two animal models that were explored.

QUESTION: Do you know that there are scientific literature that's been published that has been demonstrated that, by use of animal inhalation studies, that smoking does lead to tumorigenesis?
ANSWER: If you're talking about the Witschi work and the A/J mouse, I'm aware of that, yes. I would question your conclusion, though.
QUESTION: How would you question my conclusion?
ANSWER: These animals are animals that develop spontaneous tumors of the respiratory tract, I think virtually a hundred percent tumors in their lifetime, which is relatively short.
And what we're talking about in the Witschi papers is some demonstration of perhaps more tumors at an earlier point in time in these animals, but not animals that don't get tumors versus responding to tobacco smoke.
QUESTION: Are you aware of any other scientific literature or studies that has demonstrated that animals subjected to tobacco smoke in animal inhalation studies lead to tumorigenesis?
ANSWER: I'm aware of other studies that asserted that. I'm also aware that the attempts to repeat those studies with state-of-the-art methodology could not duplicate the results.

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QUESTION: And when you say state-of-the-art technology could not duplicate the results, what do you mean by -- what are you referring to when you state "state-of-the-art technology"?

ANSWER: Well, there were some experiments years ago where some investigators put animals in a chamber and just blew smoke into the chamber and reported that they had produced some tumors. This was before we could obtain specific pathogen-free animals, animals free of viruses for studies.

And when these kind of studies were duplicated with animals that were free of virus, free of pathogens and that sort of thing, and exposed to tobacco smoke in a manner similar to what human beings are exposed, you don't get a response of this nature.

QUESTION: Did -- Has Lorillard ever conducted animal inhalation studies?

ANSWER: Yes.

QUESTION: And have Lorillard scientists concluded that animals subjected to animal inhalation studies -- subjected to tobacco smoke in animal inhalation studies contract tumors as a result of that?

ANSWER: Lorillard has not conducted any studies where we had a tumor as an endpoint, did not produce any tumors in the animals that I'm aware of that could be associated with exposure.

One of our investigators that I mentioned earlier, Dr. Coggins, has written a review and published it that relate to failure to produce tumors in rats and mice.

QUESTION: Has Lorillard conducted any animal inhalation studies where any other endpoint besides tumors was the endpoint?

ANSWER: Yes. We always look at general pathology of the respiratory tract in the animals.

QUESTION: What were some of those endpoints?

ANSWER: Generally, endpoints were hyperplasia, metaplasia, some infiltration of macrophages -- a recruitment of macrophages perhaps would be a better way to state it -- into the lower respiratory tract.

We have looked at the various endpoints and -- but the general pathology that you would normally look at.

QUESTION: During the course of your, Lorillard's, animal inhalation studies, has Lorillard ever determined that animals subjected to tobacco smoke in animal inhalation studies contract hyperplasia?

ANSWER: Yes, we can see hyperplasia as

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a response.
QUESTION: Metaplasia?
ANSWER: We've seen some metaplasia. And, also, the reversal of these if you let the animals recover from exposure.
QUESTION: Microphages (sic)?

ANSWER: Yes, I mentioned that. Macrophage.
QUESTION: Macrophages?
ANSWER: Numbers in macrophages increase as a result of the exposure.
QUESTION: Who determined that tumorigenesis -- tumor -- tumorigenesis -- now I'm getting tongue-tied, I apologize -- who determined that tumor formation should not be an endpoint for a Lorillard scientist to pursue in animal inhalation studies?
ANSWER: Lorillard, as I say, has no information that you can produce a tumor in the animals in terms of lifelong studies. We believe it's unproductive to try to do that. There have been many investigators that have tried and failed.
So we use 90-day exposures, and which is kind of the typical toxicological time period.
QUESTION: Do you believe that 90-day exposures is a long-term experiment?
ANSWER: I would consider it long-term, certainly not lifelong experiments.
QUESTION: Has Lorillard ever conducted lifelong experiments on animal inhalation studies?
MR. ALLINDER: With smoke? With smoke?
QUESTION: With smoke.
ANSWER: Only through our sponsorship of CTR.
QUESTION: Do you know that the

management of the Tobacco Working Group received warnings from members of Congress regarding the exact nature of their research and the appropriations that the Tobacco Working Group and National Cancer Institute would receive if those findings were adverse to tobacco company interests?
ANSWER: I've never heard that.
QUESTION: You don't know one way or the other?
ANSWER: I've never heard it.
QUESTION: Do you know one way or the other whether members of the Carter administration -- that's President Carter -- exerted pressure on the National Cancer Institute to support the Tobacco Working Group or the National Cancer Institute regarding the research it was doing on tobacco and health?

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ANSWER: I don't know the time period, whether it was Carter or not. But at the end or shortly before the end of the Tobacco Working Group, there was a change in the administration within the Cancer Institute.

And I believe that corresponded with a change in the philosophy of the Cancer Institute given as the reason for terminating the activities. And that was that the National Cancer Institute should not be working on a safer cigarette, as it was described, and they should adopt the position that people should not smoke.

QUESTION: And wasn't it the position of Dr. Gori that it was possible to develop a safer cigarette?

ANSWER: He thought he was making progress, yes.

QUESTION: Isn't it true that Lorillard did not share the results of its animal skin-painting experiments with the Tobacco Working Group?

ANSWER: No, it's not true. Lorillard shared all of the information we had that was relevant to the work that the Tobacco Working Group was doing.

QUESTION: I take it from your answer that there was skin-painting experiments that were not shared with the Tobacco Working Group that you believed were irrelevant to the Tobacco Working Group?

ANSWER: There was skin painting on fractions of the tobacco smoke condensate that Lorillard had conducted through an outside laboratory. And fractionation of tobacco smoke was not of interest to the Tobacco Working Group. That information was not shared.

Information that related to the skin painting of whole smoke, much of what we participated in, was published by Dr. Wynder and his associates; and, therefore, was available to the Tobacco Working Group through the open publications.

So there was nothing other than this

fractionation work that we did not share. And, as I say, it's not relevant, it wasn't relevant.

QUESTION: You testified earlier that your opinion is that the research that was conducted by the Tobacco Working Group was significant and of high quality; is that correct?

ANSWER: That's correct.

QUESTION: Do you have any other opinion regarding the work that was conducted by the Tobacco Working Group?

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ANSWER: Well, I have an opinion regarding the animal inhalation work in terms of attempts to develop a bioassay, in terms of the quality of that work, the results of that work. I have opinions on the data that was collected on cigarette variants that were studied by the group.

And this was -- Much of the approach was to create variations in the tobacco product and then determine whether or not there was a change in the response on mouse skin.

QUESTION: Any other opinions regarding the work that was conducted by the Tobacco Working Group?

ANSWER: Well, that's the only in terms of the final conclusions, which it didn't seem practical to, from anything that had been done, to advance the commercial products beyond that which had already taken place; that is to say, the directions that came out

of the Tobacco Working Group were consistent with directions that had already been taken by Lorillard.

QUESTION: And what were those recommendations?

ANSWER: They related to the use of reconstituted sheet and the fact that it produced a lesser response on mouse skin, that is, condensate from that; they related to the use of expanded tobacco, which also produced a lesser response on skin of the animals.

QUESTION: How had Lorillard already implemented those recommendations?

ANSWER: They were incorporated into our products. Let's see. The reconstituted sheet technology was incorporated into our products in the 1960s, early 1960s. And the expanded tobacco was incorporated in our products in the early 1970s, maybe '71 or '2.

QUESTION: Did there come a time when Dr. Gori became a paid consultant for the tobacco companies after the Tobacco Working Group ceased to be in existence?

ANSWER: Not to Lorillard. I believe he did have some relationship with one other company, but I don't know the details of it.

QUESTION: Do you know which company he may have had that relationship with?

ANSWER: I think it was with Brown & Williamson.

QUESTION: Has Lorillard conducted

toxicological studies to determine whether any compound in tobacco smoke is carcinogenic?

ANSWER: Carcinogenic to animals, yes. We have had a program and continue a program

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of testing any additives that we employ to tobacco to determine whether or not they, in the smoke media, produce any change in response in the animals.

This was -- This is both with respect to mouse skin and with respect to the inhalation assay that I mentioned earlier and, also, a number of in vitro assays.

QUESTION: You refer to in vitro assays. Can you describe for the record what an in vitro assay is?

ANSWER: Generally, in vitro is something that's done outside of the whole animal. It uses animal parts or cells, not necessarily just animal parts but living components and/or cells. And we carry out tests at that level without the intact organism.

QUESTION: Has Lorillard Tobacco Company ever conducted in vitro assays of human cells to determine the carcinogenic nature of any compound or particulate in tobacco smoke?

ANSWER: No. Most of the human cells are in tissue cultures. And I think it's been our general opinion that these are not very reproducible. And there's not a standard test using tissue culture.

I can't fully remember whether we experimented with HeLa cells, which are a human cell lung. I just don't remember. It's possible.

QUESTION: So would it be fair to say that Lorillard did not conduct in-house its own skin-painting experiments in the 1960s?

ANSWER: We did not house animals for that purpose.

QUESTION: Does Lorillard continue to conduct skin-painting experiments today?

ANSWER: We do conduct them today.

QUESTION: Do you conduct them in-house today?

ANSWER: No, they are conducted at consulting laboratories.

QUESTION: Has Lorillard ever conducted skin-painting experiments in-house?

ANSWER: No, we have not.

QUESTION: When was the first time that Lorillard Tobacco Company used animal inhalation studies?

ANSWER: Well, we started -- we started some animal inhalation studies back in the early 1960s that related to work that we did on ciliostasis.

QUESTION: What is ciliostasis?

ANSWER: Cilia are cells that have a structure called the cilium, which is a protrusion, a hair-like structure. These cells line the upper respiratory tract, the trachea, major bronchi.

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And their purpose is to beat in unison in order to propel mucus up out of the respiratory tract and propel up any particles or materials that are on the mucus layer. So it's a mechanism of removing materials from the upper respiratory tract, sometimes called the mucociliary escalator.

QUESTION: And my question is what is ciliostasis?

ANSWER: If those cells stop functioning, then you call it a ciliostatic event.

QUESTION: Based on the toxicological studies that have been conducted at Lorillard, does smoking cause ciliostasis?

ANSWER: We cannot say from the studies at Lorillard; but we can say that we can demonstrate in animals that you can get ciliostasis, in animal exposures.

We can further demonstrate that the materials that cause that effect in the animals are absorbed in the oral cavity of man. And other investigators have published indicating there isn't a significant ciliostatic effect in the average smoker.

QUESTION: When was the first time that Lorillard determined that you could determine in animal studies the ciliostatic effect of smoking?

ANSWER: We were studying -- studying this back in the early 1960s.

QUESTION: And is that when the company

first determined that you could demonstrate ciliostatic effect in animal studies?

ANSWER: In these bioassay systems that we were -- we had developed. And at the time it was the -- the early ones were the clam and the frog and the rabbit and the cat.

QUESTION: And is the result of those studies in the early sixties reflected in the article written by, authored by you, Rylander and Dalhamn?

ANSWER: Some of that, yes. And some of the other work that was done by Rylander and Dalhamn in their laboratories was also published, but I wasn't an author, so -- But it was work sponsored by Lorillard.

QUESTION: Turn to Page 3 of your expert report.

And I refer you to the first full paragraph where you -- where it states, "I may testify about research Lorillard has sponsored or conducted in-house on smoking and health issues, including research relating to the chemical composition of cigarette smoke."

Do you have an expert opinion of the research that Lorillard has sponsored or

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conducted in-house on smoking and health issues, including research relating to the chemical composition of tobacco smoke?

ANSWER: Yes, I have an opinion.

I mean, it was high-quality research that was conducted over time of a program

trying to identify components of tobacco smoke, particularly those that might have a biological activity, that is, a -- cause a response in a bioassay system.

And this ranges from the early work on benzo[a]pyrene. And then we had studies developing methods for the determination of phenols, which at the time were thought to be promoters in the mouse skin, promoters of carcinogenesis, and also were thought to have some role in ciliostasis in these bioassays that we were using.

We went on to look and identify many compounds that were in some of these fractions that we generated that were painted on mouse skin and published the results in terms of what we were identifying.

And that led to some of the mouse skin-painting experiments that I've already described where we were testing some mixtures of compounds that we found to be present in tobacco smoke. That would be, I think, the nature of the testimony.

QUESTION: Has Lorillard ever published any article or written statement to the public that any particular compound in tobacco smoke is known to be an animal carcinogen?

ANSWER: Specifically stating that this compound is in tobacco smoke and is an animal carcinogen?

QUESTION: Correct.

ANSWER: I don't think so.

QUESTION: Are you aware that over the course of the same period of time, from the early sixties to the present, that there exists scientific literature which have concluded that particular compounds in tobacco smoke are known to be animal carcinogens?

ANSWER: Yes.

QUESTION: Can you identify for me, other than the skin-painting experiments or the animal inhalation studies, can you identify for me any bioassays that Lorillard has used to determine the carcinogenicity of any chemical compound used in tobacco smoke?

ANSWER: We have used -- and I think continue to use most of these -- but we have a program of evaluating additives, potential additives to tobacco. And we start out with

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a series of short-term tests. And among those are the Ames mutagenic tests.

There are tests to determine whether or not you can affect the immunocompetence of the test system by a specific component that you're testing or ingredient that you're testing. There are tests that try to determine whether or not there is any cardiovascular effects.

Actually, I think there are additional mutagenic tests, including the sister chromatid exchange is another that we have used and I think we may still use.

And then we get to the longer term. There is a longer term inhalation study and the mouse skin studies which we thought to be -- And I'm sure I'm not covering all of the individual tests that we have used or continue to use in this evaluation scheme, but those are the ones that occur to me at the moment.

QUESTION: And have you used these tests, the ones you just noted, to determine whether or not any particulate in tobacco smoke or any compound, chemical compound, in tobacco smoke is or is not carcinogenic?

ANSWER: I don't recall that, but that's not the basic purpose of the test. It's to determine whether or not a potential additive to tobacco is suitable, from our point of view, with respect to its toxicology.

QUESTION: Other than the experiments that you just -- the types of experiments that you just noted and the skin-painting experiments and the animal inhalation studies, can you think of any other type of experiment that Lorillard employs or has employed in its research activities?

ANSWER: No, I think that that covers everything that occurs to me now.

QUESTION: Do you have an expert opinion regarding Lorillard's efforts to modify its products over the years?

ANSWER: Yes.

I know what modifications have occurred

and I know, you know, what generally the scientific community -- there was knowledge in this area was suggesting with respect to product modifications over time, and basically what Lorillard did in some of its research activities in response to those kind of opinions and communications in the scientific community.

QUESTION: And what is your opinions with respect to that?

ANSWER: Well, on some of it, I've already talked about. But in response to the

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skin-painting activity in the early 1960s, particularly with Dr. Wynder's laboratory and then some of the confirmation in Homberger's laboratory, we adopted the use of reconstituted sheet which had a lower response -- the condensate from which had a lower response on mouse skin.

Also, in the early 1970s we started to include expanded tobacco into our products. And this, too, shows a lower response on mouse skin condensate from it.

This was all confirmed, again, to us with the Tobacco Working Group activities where they conducted mouse skin-painting experiments on these same -- same materials.

Over time, there was a feeling that if you could increase the porosity of paper and this sort of thing, that this would reduce, possibly reduce activity on mouse skin.

But, more importantly, it became a

technique of general reduction in terms of tar and nicotine. And we've adopted more porous papers and more efficient filters, including ventilation which allowed you to reduce paper-based components that are not reduced by conventional type of filters without ventilation.

Again, all of these areas have been researched and adopted into most of our brands. And as I indicated, much of this is consistent with the direction that came out of the Tobacco Working Group activity and the direction that was being promoted by Dr. Gori at the time.

Also, in that same time frame there were suggestions that people smoked for nicotine; and, therefore, if you could maintain the level of nicotine and reduce tar selectively, tar being the other components and thought to be those that produced the response on mouse skin, that this would be a, quote, safer cigarette.

We conducted a research program that was aimed at the possibility of trying to do that. That same proposition was advanced by some folks in the U. K. as well in that same time frame. It was kind of a group of public health-related people were kind of advocating that as a possibility of making a safer cigarette.

I would describe these things in terms of my opinion on this.

(Whereupon the playback of the above-referenced videotape is suspended at this time.)

MR. COPLEY:

Your Honor, it's time for the break.

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THE COURT:
Yes. We'll take our mid afternoon recess until 3:00 o'clock.
(Whereupon the jury is excused at this time.)
THE COURT:
Let the record reflect the jury has left the courtroom.
Anything for the record by plaintiffs' counsel?
MR. MURRAY:
Yes, Your Honor.
Your Honor, The Court has under advisement a motion for a mistrial. I would appreciate it if The Court would allow me to make some comments on that motion.
I don't know whether The Court preference would be to do that now or at some other time. But before you rule, I'd like to be heard on it.
THE COURT:
I intend to order sometime today -- and this is as good a time as any -- a briefing and indicate that a hearing will occur on Monday of next week.
MR. MURRAY:
Thank you, Your Honor.

THE COURT:
Is my impression correct that we will not have live testimony on Monday of next week but we'll do depositions or documents? Or has that been resolved?
MR. SCHNEIDER:
I was going to put that on the record, Your Honor.
My understanding of our arrangements with the plaintiffs is that I will start Dr. Blackie at 1:30 on Monday. And then that way both sides working together can make a good-faith effort and use all efforts to get her done so that she can leave by the close of court session on Wednesday.
THE COURT:
All right. Well, I'm going to order that -- request that briefs be filed in support of the motion and in opposition of the motion and certainly no later than 9:00, 9:30 Monday morning. But any earlier than that would give me more time to look at them. And I'll conduct a hearing.
MR. MURRAY:
Your Honor, do you want those filed simultaneously?
THE COURT:
Yes. There will be no reply briefs.
MR. MURRAY:
Thank you.
THE COURT:
So let's set 9:30 Monday morning as the

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filing time for the memorandums in support of and the memorandums in opposition to the mistrial.

MR. MURRAY:

Thank you.

MR. SCHNEIDER:

Your Honor, we also wanted to run some depositions on Monday morning, including a 12-minute spot from a B & W witness, Phil Fisher.

I've given a copy of the CD to Ms. DeSue to give to the Gertlers. The Gertler family may be on their way to Syracuse to celebrate their son's graduation.

MS. DeSUE:

They are.

MR. SCHNEIDER:

But they've seen this and they're aware of it.

MS. DeSUE:

Well, they haven't had an opportunity to review it, though.

MR. SCHNEIDER:

Okay. Well, it's 12 minutes, so I think they'll be able to do that.

MR. MURRAY:

We'll do our best to have that --

MS. DeSUE:

Maybe if you could show it a little later. They're going to have to view it that morning.

MR. GAY:

We have some other depositions that we could play Monday morning, Your Honor --

MS. DeSUE:

That would be helpful. Thank you.

MR. GAY:

-- as well.

MR. SCHNEIDER:

Okay.

THE COURT:

Anything else for the record by plaintiffs' counsel?

MR. MURRAY:

Yes, Your Honor.

In connection with the testimony of Dr. Townsend, I want to make sure that certain exhibits are in the record.

Exhibit 4241, it's my understanding that was preadmitted with the Teague deposition; but in an abundance of caution, I would reoffer that exhibit.

4622, which is similar to 4596 and 4930, the advertisement on the open debate, we would offer into evidence at this time.

Exhibit 4238, which I understand was preadmitted in the Rodgman deposition, again, we offer in an abundance of caution.

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Exhibit 2333, the CORESTA memorandum, we would offer at this time.

And Exhibit 4371, we would offer at this time.

THE COURT:

The only objections I heard to 2333 were

the ones that were decided by Special Master Gianna. And there was one other one.

MR. BELASIC:

4371 was the same situation.

THE COURT:

4371?

MR. BELASIC:

The Special Master overruled privilege.

THE COURT:

Those privilege objections were overruled. And the others are --

MR. BELASIC:

The other three, we didn't object to. The other three we did not object to, as far as I remember.

THE COURT:

So then all of those exhibits will be received.

MR. MURRAY:

Thank you, Your Honor.

MR. SCHNEIDER:

2333, Your Honor, we did object to but Your Honor overruled that objection.

THE COURT:

All right. Anything else?

MR. MURRAY:

That's all by plaintiffs' counsel.

THE COURT:

Defense counsel, anything for the record?

MR. WITTMANN:

No, Your Honor.

THE COURT:

All right. We'll recess at this time.

(Whereupon a brief recess was taken at this time from 2:49 o'clock p.m. to 3:06 o'clock p.m.)

THE BAILIFF:

All rise for the jury, please.

(Whereupon the jury joins the proceedings at this time.)

THE MINUTE CLERK:

All rise, please. Recess is over. Court will come to order. You may be seated.

THE COURT:

Mr. Copley.

MR. COPLEY:

Thank you, Your Honor.

(Whereupon the playback of the above-referenced videotape is resumed at this time as follows:)

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QUESTION: But do you have an opinion of Lorillard's efforts to modify its products over the years?

ANSWER: I think the efforts that were made were consistent with the data that we had, consistent with the data that other investigators had generated, including the Tobacco Working Group. And I think that our responses in the changes that we incorporated were state-of-the-art and done in a timely fashion.

QUESTION: What is your understanding of the term "denicotinized cigarette"?

ANSWER: A cigarette with essentially zero nicotine. Maybe a better definition would be substantially reduced nicotine in the tobacco.

QUESTION: Has Lorillard ever marketed a denicotinized cigarette based on the definition that you just provided?

ANSWER: No, we have not.

QUESTION: Has Lorillard ever test marketed a denicotinized cigarette based on the definition that you provided?

ANSWER: No, Lorillard has not.

QUESTION: Have you developed any products using alternative delivery systems for -- on an experimental basis?

ANSWER: Yes, we have worked on products. One was a product that had a hole down the center of the product, which kind of burned in a reverse fashion at much higher temperatures than tobacco normally burns, producing a very different cigarette smoke condensate.

And we investigated that product. Not only possible ways to fabricate it but, also, a fair amount of detail in smoke composition. That was one research activity. We have had --

QUESTION: Let me stop you there for a second.

Did that product with the hole down the center have a particular name within Lorillard?

ANSWER: It had a project name, but I don't remember it right now.

I was going to say we have, of course, looked at -- we've looked at modifications you might make in reconstituted sheet that would alter the products.

I've already discussed generally the fact that we had a project related that -- related to reducing nicotine and one reducing nicotine and keeping -- reducing tar and maintaining the level of nicotine. These are some of the alternate designs that we

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certainly looked at at the time.
QUESTION: The product with the hole down the center, did Lorillard ever test market that product?
ANSWER: No, we did not.
QUESTION: Isn't it true that individuals compensate by smoking more cigarettes when changing from a higher yield to a lower yield cigarette?
ANSWER: Well, I think the data is that there may be a small increase in the number of cigarettes smoked per day, but that is not the primary mechanism of compensation.
QUESTION: What is the primary mechanism of compensation, in your view?
ANSWER: Larger puffs.
QUESTION: Isn't it true that individuals who smoke lower yield cigarettes will intake a greater amount of nicotine and tar per cigarette than is reported on the

cigarette pack based on the FTC method?
ANSWER: Some people certainly do, but I think that's also true of the higher yield cigarettes as well.
QUESTION: Has Lorillard Tobacco Company ever conducted any epidemiological tests to determine whether the incidence of lung cancer has decreased as a result of low-tar and low-nicotine cigarettes?
ANSWER: Lorillard hasn't conducted any such study, no.
QUESTION: In your view, as you sit here today on July 24th, 1997, Lorillard has never been responsible for the death of any smoker; is that right?
ANSWER: Not to my knowledge, no.
QUESTION: All right. And your interest, I take it, is to sell as many Lorillard cigarettes as possible?
ANSWER: That's one of the interests. Certainly, take the competitive share of market, yes.
QUESTION: All right. And Lorillard is now the Number 4 cigarette company in this country?
ANSWER: That's correct.
QUESTION: How many cigarettes, on average, does Lorillard sell in a year?
ANSWER: Which year?
QUESTION: Well, let's take the last couple of years. If the number has changed dramatically, tell me.

ANSWER: About 40 billion cigarettes.
QUESTION: Forty billion with a "b"?
ANSWER: With a "b."
QUESTION: Okay. Is there any category of adults whom Lorillard has publicly

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cautioned not to smoke?
ANSWER: No.
QUESTION: All right. Dr. Spears, you're aware, I take it, that as the population of smokers ages and dies off, that in order for the American cigarette industry to maintain its sales, you've got to get some new smokers into the population; is that right?
ANSWER: That seems reasonable, yes.
QUESTION: All right. And the only way to get new smokers into the population, that is, the industry as a whole, is to get new people to start; isn't that right?
ANSWER: Obviously, if there are people stopping, there must be people starting --
QUESTION: All right.
ANSWER: -- to maintain a stable business.
QUESTION: All right. And are you familiar with statistics showing that most people who start to smoke start to smoke under the age of 18?
ANSWER: I have -- I'm aware of those statements. I have not reviewed carefully the statistics, no.
QUESTION: If we can, let's mark as the

next exhibit, I believe it will be "Spears 4," an August 11th, 1981 memo from a Tom Mau, M-A-U, to a list of individuals.
And, Dr. Spears, what I have done to try to save some time is I have a copy of this document in which I have highlighted a statement I want to refer you to. And I've highlighted a copy for you to see, but you're certainly free to read everything in the document. This is just a time-saving device.
Dr. Spears, are you familiar with the statistics stating that approximately 3,000 teenagers start smoking every day?
ANSWER: I have seen the numbers in the press recently, that's all. I haven't --
QUESTION: And what do your marketing people tell you about that?
ANSWER: Nothing that I can recall.
QUESTION: Have you not asked them to -- "Is this true or not true?"
ANSWER: No.
QUESTION: Is that a --
ANSWER: I don't believe we've ever made such a study.
QUESTION: Has Lorillard ever cut off a retailer or a distributor because Lorillard learned that that retailer or distributor was selling to underaged smokers?
ANSWER: Not to my knowledge.
QUESTION: All right. Dr. Spears, do you agree that Lorillard, as a company that sells billions of cigarettes a year, that it

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has an obligation to thoroughly test its cigarettes to determine that they are safe for consumers? Do you accept that obligation?

ANSWER: We have accepted the obligation to continue to evaluate our cigarettes, yes.

QUESTION: And as you sit here today, are you satisfied, based on whatever testing Lorillard has done, that Lorillard cigarettes are safe for consumers?

ANSWER: Well, "safe" is an absolute term. I don't think I could represent that cigarettes or anything else is absolutely safe. I think that's -- that's not possible.

It's not possible to say it with really anything that you ingest or the air you breathe or anything else. So, no, I could not represent to anyone that cigarettes are safe in that context.

QUESTION: All right. Can you represent to anyone that Lorillard has done sufficient testing so that you are satisfied, as the head of Lorillard, that Lorillard cigarettes are reasonably safe?

ANSWER: I believe that we have done what, in my judgment, is all of the appropriate kinds of tests that we can do which would indicate -- which would indicate to me that we do not know how to make any improvements in the cigarettes beyond what they are.

And I do not believe that we are able to

change the risk factor estimate that we have made with respect to the epidemiology.

Beyond that, I'm unaware of animal models that could be used for that determination beyond what we have done.

So I think we have taken, really, all of the appropriate steps to produce as satisfactory a product as we can produce.

QUESTION: All right. Now, you say that you've conducted all the appropriate tests. Has Lorillard sponsored any epidemiological studies to determine whether cigarettes cause disease?

ANSWER: Only through The Council for Tobacco Research, yes.

QUESTION: All right. Dr. Spears, do you understand that in this country consumers don't have an obligation to test a product that they buy in the mass market to determine if it's safe, that they're entitled to rely on the manufacturer? Do you accept that as a proposition?

ANSWER: Well, I think they rely on the manufacturer and they rely on information that's on the package, yes.

QUESTION: Okay. Health, smokers

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couldn't test cigarettes for health, could they, even if they wanted to?
ANSWER: Generally, no.
QUESTION: Okay. And, Doctor, do you accept as a correct proposition that it's not the government's obligation in this country

to test a private company's products to determine if they're safe or not, that's the manufacturer's obligation? Do you accept that?
ANSWER: Generally, yes.
QUESTION: All right. Has Lorillard ever studied the lung cancer rate among its employees who smoke?
ANSWER: I don't have any information, no.
QUESTION: All right. Now, what about Lorillard statements? You've stated here publicly that you do not believe that smoking has been proven to cause lung cancer. Is that a statement that you believe is true and credible?
ANSWER: Yes, I do.
QUESTION: Is that a statement that you believe the public should rely on?
ANSWER: I think that they should rely on that statement, yes.
QUESTION: All right. And when your company makes public statements such as "It has not been proven that smoking causes lung cancer," you believe that the public should rely on those statements as true and credible; don't you?
ANSWER: I believe that the statement that is being made is accurate based on the scientific information that's available, yes.
QUESTION: And you believe that that's a statement that the public can rely on?

ANSWER: If I'm making that statement, I believe they should rely on it, yes.
QUESTION: All right. Okay. Now, when the tobacco industry states that there is still a controversy concerning the interpretation of the data, is that a statement the public should be allowed to rely on?
ANSWER: It's an accurate statement.
QUESTION: All right. And, first of all, you want people to smoke or you'll have no market?
ANSWER: Well, I think that's their choice. I mean, we're not trying to influence whether they do or do not smoke.
QUESTION: Okay. But I'm asking you, Lorillard, Lorillard wants people to smoke; doesn't it?
ANSWER: Well, if there were no smokers,

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obviously, Lorillard wouldn't be in this business.
QUESTION: All right. So Lorillard wants people to smoke so it can have a market. That's fair; isn't it?
ANSWER: It's somewhat fair. It's not quite what I would say. I think Lorillard is not trying to cause people to smoke. That's not part of our strategy, never has been. But if they choose to smoke, then we would like them to choose Lorillard brands.
QUESTION: All right. Dr. Spears, when you came to Lorillard in 1959, was Lorillard

already studying the issue of tobacco smoke and health effects?
ANSWER: They were beginning some -- Well, they had done analytical work and they were doing some fractionation of cigarette smoke particulate. And they were, I guess, providing some materials to some of the investigators who were doing skin painting.
QUESTION: Okay. And for each of those 37 years, has Lorillard either done research or sponsored research somewhere concerning tobacco and health?
ANSWER: Each of the 35 years? It depends on how you define smoking and health, but I would say "Yes."
QUESTION: All right. And after those 37 years of sponsoring research, to the extent Lorillard has done, as we sit here today, it is your testimony that we still do not know that cigarette smoking causes lung cancer; is that right?
ANSWER: That's my conclusion. We certainly know a lot more today than we knew 35 or 37 years ago.
QUESTION: All right. But we don't have the proof, in your view?
ANSWER: We do not.
QUESTION: Has Lorillard ever taken a cigarette off the market because of health concerns?
ANSWER: No.
QUESTION: Do you have any plans to do

so?
ANSWER: Not today, no.
QUESTION: All right. Dr. Spears, what's the value of mouse skin-painting studies in proving the carcinogenicity of a substance?
ANSWER: What is the value of it?
QUESTION: Yeah.
Why are they being -- Why were they done in the past and why are they sometimes still done?
ANSWER: Well, number one, it's the only

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test that I am aware of that produces a tumor as a result of applying cigarette smoke. It's been used, I think, for that reason. It really is the only test.

Everyone who uses it, maybe except a few very devoted skin painters, have expressed the desire to find some alternative procedure that would be more representative of a tumor or lung tumors.

I don't think anybody's happy with it beyond the fact that you can show something has some potential to be tumorigenic.

QUESTION: All right.

ANSWER: How much of a potential that's demonstrating on the proximate carcinogen of the nitrosamines has no validity if you're trying to test nitrosamines.

QUESTION: Are nitrosamines an organ-specific carcinogen?

ANSWER: They can be.

QUESTION: Is one of the organs for which they're specific the lung?

ANSWER: That's correct. In certain animals.

QUESTION: All right. So you wouldn't expect applying the nitrosamine to mouse skin to get the same reaction that you would in the lung; would you?

ANSWER: No. But I'm saying you don't get a response on the mouse skin.

QUESTION: And there's a reason for that; isn't there?

ANSWER: Well, that's why the skin is not appropriate. Yes, there's a reason.

QUESTION: So on mouse skin, you wouldn't get a reaction but it can cause cancer in the lung?

ANSWER: Not if you apply it to the skin.

QUESTION: Well, obviously not.

ANSWER: But if you put it in the --

QUESTION: The same substance --

MR. LONG: Let the doctor finish.

ANSWER: But if you put it in the drinking water, you can get the lung tumor; but you can't get it by applying it to the skin. So in that particular instance, the skin is the wrong model.

And the skin is a very, very limited model that I think a lot of people think has little to no validity for determination of carcinogenesis.

QUESTION: Do you agree with that?

ANSWER: I agree that it can do no more than demonstrate that there is some potential here for carcinogenesis.

QUESTION: Has Lorillard supported or

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sponsored mouse skin-painting experiments in the past?

ANSWER: Yes, we have.

QUESTION: Do you still do that?

ANSWER: Yes, we do.

QUESTION: And if it has little or no value, why do you do it?

ANSWER: As I said, it is the only model that you can produce a result of tumor -- of a tumor using smoke, cigarette smoke.

QUESTION: Well, let's say you get no reaction on the mouse skin. Does that mean you're not going to get a reaction in the lung?

ANSWER: No.

QUESTION: All right. Let's say you get a reaction on the mouse skin. Does that mean you'll get the same reaction in the lung?

ANSWER: What I think -- You can make comparative studies on the mouse skin. And if you got a different result from two substances, then that simply says, hey, this might be worth some additional testing in another system.

But it certainly -- I wouldn't use it as any conclusive experiment. The National Cancer Institute, I believe, reached the same

conclusion.

Some of the other problems with mouse skin -- if you want to get into the detail of it -- is that you have a very, very limited dose range in which you can get a response. And frequently if you apply a higher dose, you get a lesser response.

So if you do a couple of different dose levels, you get no response, then you get a response, and you go higher and the response goes down again. So you can only function in a narrow range.

QUESTION: What type of mouse skin-painting experiments is Lorillard sponsoring now?

ANSWER: We have a program that relates to any additives that we put on cigarettes. And that we test these additives in the presence of tobacco and on -- and we test the tobacco smoke that results from cigarettes with the additives.

And part of the screening is to whether or not we find these additives useful and willing to use on cigarettes is -- one of the pieces of that is the skin-painting experiment.

QUESTION: All right. And when did Lorillard begin the skin-painting test for additives?

ANSWER: Probably about late seventies, early eighties.

QUESTION: All right. And, Dr. Spears,

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I'd like to ask you can you tell me is there any number of cigarettes smoked by a person that you would agree would cause disease? Any number of cigarettes?

ANSWER: Any number of cigarettes? That's a difficult question. I think you could probably kill yourself if you smoked 24 hours a day, one cigarette after the other.

QUESTION: And how would you kill yourself doing that?

ANSWER: You'd probably asphyxiate yourself.

QUESTION: From the carbon monoxide in cigarettes?

ANSWER: And/or nicotine, yes.

QUESTION: Okay. Other than that, other than 24 hours a day, is there any dose of cigarettes, number of cigarettes smoked per day, that you would agree would cause disease?

ANSWER: No.

QUESTION: Dr. Spears, until quite recently, the American tobacco industry was united in denying that cigarette smoke caused disease; is that true? All the companies were agreed upon that?

ANSWER: I don't think there's any agreement among the companies on that statement. Each company is making their individual statements.

QUESTION: All right. Are you aware of any American tobacco company that, as of two

years ago, was stating "We agree that cigarette smoke causes lung cancer"?

ANSWER: No, I won't -- I'm not.

QUESTION: Dr. Spears, is it your testimony from your experience at Lorillard and in the tobacco industry generally that the tobacco industry has performed adequate tests of cigarettes, their ingredients and their additives?

ANSWER: I don't -- I can't speak for the industry. For Lorillard, I believe we have, yes.

QUESTION: All right. And is it your testimony, sir, from your experience at Lorillard and in the industry that Lorillard has performed adequate testing of the ingredients of the flavor compounds that Lorillard has purchased from flavor houses?

ANSWER: Yes, that is my position.

QUESTION: All right. And is it your position, sir, that Lorillard has performed timely testing of cigarettes, their additives and their ingredients?

ANSWER: I think so, yes.

QUESTION: Let me restate it this way. Is it your testimony, sir, from your

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experience at Lorillard and in the industry that Lorillard has performed timely testing of the additives which have gone into Lorillard cigarettes?

ANSWER: That -- By "additives," do you mean things that Lorillard has added?

QUESTION: Yes.

ANSWER: Yes, I believe so.

QUESTION: All right. Dr. Spears, did you ever become aware of any instance during your career at Lorillard and in the industry of any time when any tobacco company official or group of tobacco company officials took any steps to prevent adequate testing of cigarettes, their ingredients or their additives?

ANSWER: Took steps to prevent?

QUESTION: Yes.

ANSWER: No.

QUESTION: Let me mark as next a February 21st, 1967 letter from Dr. Spears to a Mr. Bennett.

Dr. Spears, are you familiar with the experiments discussed in this letter?

ANSWER: Yes, I am.

QUESTION: It looks as if you had sent some cigarettes out to two doctors and had them test the effect of the cigarettes on cat cilia; is that basically right?

ANSWER: That's correct.

QUESTION: All right. And quoting from the first page, quote, "The results which he has obtained to date indicate that Lark cigarette smoke is about twice as toxic as smoke from True cigarettes," unquote.

Did I read that correctly?

ANSWER: You did.

QUESTION: All right. Was Lark a

Lorillard brand?

ANSWER: No, it wasn't.

QUESTION: All right. And was True a Lorillard brand?

ANSWER: Yes, it was.

QUESTION: All right. Why are we concerned, Doctor, about whether cigarette smoke has an effect on the cilia or not? Why should we care?

ANSWER: Well, as I recall this, this was in and around the time that Lark cigarettes came on the market and received some positive comments with respect to them in the Surgeon General's report, the first Surgeon General's report, with respect to ciliotoxicity in that Lark cigarettes contained the carbon filter.

That work was done by other investigators. And this was an effort to see

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whether or not the systems that we were using to look at ciliary activity would respond in a way that would confirm those -- confirm the results of those who had done testing on Lark cigarettes. So I think that's why these two samples were picked for the evaluation.

And, of course, the results did not confirm what the investigators that studied the Lark cigarette had indicated and it published.

I think where all of this ended up was that the results you get depend on how you conduct these tests. They're really not

representative of the human situation. And the method of exposure is very important as to how you weight the significance of the different components of cigarette smoke and that sort of thing.

I think the bottom line is that most of the components that are toxic to cilia at the concentration of cigarette smoke are very water soluble and are absorbed in the oral cavity. And very few, if any, go into the lower respiratory tract and affect the cilia.

QUESTION: Do you recall your company ever looking into whether manipulating nicotine by enriching nicotine in a cigarette could bring you under FDA jurisdiction?

ANSWER: Did we ever consider that possibility?

QUESTION: Yes.

ANSWER: Yes, we considered that possibility.

QUESTION: All right. When Lorillard was working on its Nicotine Augmentation Project, I understand your testimony is it never got out of -- never got into commercial production, but while you were working on the project, what were the steps that Lorillard took to augment the nicotine in the cigarettes that were being developed?

ANSWER: Well, I'm not sure I can recall all those steps. But, as I recall, Lorillard investigated the transfer of nicotine from tobacco to the smoke and what might influence

that transfer. And this was some of the normal construction variables, including the paper, cigarette paper.

We investigated whether or not if you put -- moved the nicotine to the outer periphery of the cigarette as to whether you would get greater transfer, we looked at adding nicotine in various forms to the tobacco. Those are the things that I recall at the moment.

QUESTION: Dr. Spears, --

ANSWER: We looked at treating filters

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to make them less effective for nicotine; whereas, they would remain effective for the tar.

QUESTION: And as I understand your testimony, Dr. Spears, the reason Lorillard did not market the nicotine-enhanced cigarette was because of a taste problem with it?

ANSWER: We -- I think the observation was that if you took a three milligram tar cigarette and increased the nicotine, that it was an irritating, unacceptable cigarette smoke. Therefore, we gave up the idea of trying to augment these low-tar cigarettes with nicotine as a procedure for potentially making them more acceptable.

QUESTION: And so was it then the taste problem that was the reason why Lorillard did not market the nicotine-enhanced cigarette?

ANSWER: Taste? Well, I mean, that --

that was a technical factor that eliminated the project from further consideration.

QUESTION: That was the reason that killed the project?

ANSWER: Yeah. We could not accomplish the end result, which was an acceptable product. So it never got to the consideration as to whether we would actually market the product.

QUESTION: Dr. Spears, as you sit here today, are you aware of any misrepresentations, false statements or concealment of material facts by Lorillard, or anyone acting on Lorillard's behalf, regarding issues of smoking and health?

ANSWER: I'm not aware of any, no.

QUESTION: All right. Are you aware of any joint efforts by Lorillard and any other tobacco company to misrepresent or conceal material facts regarding smoking and health matters?

ANSWER: No, I'm not.

QUESTION: Well, let's look at an August 17th, 1960 letter from A. W. Spears to a John Howell, which we'll mark as Spears next.

Dr. Spears, does this letter reflect that you had sent an abstract of a paper to be presented at a tobacco chemists' conference?

ANSWER: It does.

QUESTION: And does it reflect that you then wrote to a Professor Howell, quote, "It

has been recently decided in the interest of the company and the tobacco industry that a paper dealing with compounds which are controversial in the health aspects of smoking should not be presented. It is,

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therefore, requested that the committee does not consider the paper for presentation at the conference," unquote.

Did you write that?

ANSWER: I, quite frankly, don't remember it. The paper was published.

QUESTION: That's a letter that you wrote?

ANSWER: That's a letter that I wrote. I'm also pointing out to you that this was published and is part of my curriculum vitae.

QUESTION: Why did you write this letter?

ANSWER: I don't remember.

QUESTION: Who told you to write it?

ANSWER: I don't remember that, either.

QUESTION: Were you offended that someone within the company asked you to pull a scientific paper that you'd prepared because it could be detrimental to Lorillard?

ANSWER: I don't remember anyone saying that. This, of course, was when I was with the company for a very short period of time.

QUESTION: You certainly were not in the position to buck a superior who told you to pull a paper; were you?

ANSWER: I would not have been at that

time.

QUESTION: All right. And the paper concerned phenol; didn't it?

ANSWER: That's correct.

QUESTION: And phenol is a substance that's alleged to be harmful in tobacco smoke; isn't it?

ANSWER: It was at one time.

QUESTION: Okay. And is phenol a substance that Lorillard tried to selectively filter out of cigarettes because of its alleged harm?

ANSWER: We did. And we published all of this work.

QUESTION: You don't remember who it was who told you as a young research chemist to pull your paper?

ANSWER: I do not.

QUESTION: Okay. Let's mark that as next, March 31st, 1980 from Robert Seligman to Alex Spears.

Dr. Spears, you've seen this letter before recently; haven't you?

ANSWER: I've seen it before. I don't know how recently.

QUESTION: All right. And was Dr. Seligman your counterpart at Philip Morris?

ANSWER: I believe at the time he was -- Well, it says Vice-President for Research & Development. And at the time, I would have been, I guess, maybe an Executive Vice-President.

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QUESTION: Okay. So we have basically two of the top research men in two of the American tobacco companies talking to each other about research projects?

ANSWER: Well, I had more responsibilities than just research at this time.

QUESTION: Okay. All right. And Dr. Seligman was writing you with topics that he thought on behalf of Philip Morris the tobacco industry should explore and then, also, topics that should be avoided; correct?

ANSWER: Yes. I believe he wrote this in expressing his views with respect to a committee that I was on.

QUESTION: All right. And the subjects to be avoided, which are listed on the last page, include, quote, "Attempt to relate human disease to smoking," unquote.

Did I read that correctly?

ANSWER: Yes.

QUESTION: All right. Now, Dr. Spears, if the tobacco industry avoids studies that attempt to relate human disease to smoking, if it avoids doing those, how do you ever expect to be able to prove, in your mind, whether smoking causes human disease or not?

ANSWER: Well, I don't know what he meant by this. But I can certainly read it to indicate that he meant to not conduct epidemiological studies.

QUESTION: All right. He says, under

"Subjects to be Avoided," quote, "Attempt to relate human disease to smoking." That that should be avoided; right?

ANSWER: Well, that's what I'm saying. A statistical relationship between disease and human smoking.

QUESTION: All right. He doesn't say, "statistical relationship." He says, "Attempt to relate human disease to smoking," that should be avoided?

ANSWER: I realize what it says. I'm simply saying I can interpret that to mean don't do epidemiological studies.

QUESTION: All right. Did you call up Dr. Seligman when you got this letter and say, "Bob, what do you mean by this?"

ANSWER: I probably did ask him what he meant by these things, but I don't recall.

QUESTION: Okay. All right. You'll agree with me, Doctor, that if you don't look in an area for answers, you're never going to find the answer; are you?

ANSWER: Well, if you -- if you believe that there's nothing more to be learned from epidemiological studies, then it would be reasonable to state don't do any more of

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those or don't attempt to do any more.
QUESTION: Well, I don't see anything in Dr. Seligman's letter that says --
ANSWER: I understand you don't, but this is subject to interpretation. And I'm simply giving you a possible interpretation

of what was meant.
QUESTION: Another subject that Dr. Seligman says the tobacco industry should avoid is "Developing new tests for carcinogenicity."
Didn't you tell me earlier today that the mouse skin was not a satisfactory test for carcinogenicity?
ANSWER: I did.
QUESTION: Well, why wouldn't the industry want to develop a new test for carcinogenicity? Isn't that exactly what you said everyone was looking for?
ANSWER: Well, I don't know what his view then was. But maybe he felt that there was no relevant test that you could develop.
QUESTION: Well, how would you know if you didn't look?
ANSWER: Well, what would you look for? I mean, we were doing inhalation studies. But if he's referring to things like tissue culture tests, which CTR had done in the past, as something that we should not invest money in, I think you would be totally correct in making that statement that this is another test that's very far removed from the human and probably has little value if you spend money there. It's a question of what are your priorities.
QUESTION: And Dr. Seligman was stating that the industry should avoid completely trying to develop any new test for

carcinogenicity?
ANSWER: The word "completely" is not here. You read it correctly the first time. It says, "Developing new tests for carcinogenicity."
QUESTION: To avoid that?
ANSWER: Subjects to be avoided.
QUESTION: Okay. Do you agree with Dr. Seligman that the industry, as of 1980, should have been avoiding efforts to develop new tests for carcinogenicity?
ANSWER: As I recall, the U. S. Government, through the National Cancer Institute, had invested heavily in trying to develop new tests for carcinogenicity. They tried various inhalation models, and none of these were successful.
I think there was at that time a strong indication that you could not -- there was

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very little likelihood of developing some new relevant tests for carcinogenicity.

That, at this time, I would say a better investment in money would be to try to better understand the mechanism of this disease. And when that's the case, then you can define more relevant tests.

QUESTION: Since 1980, has Lorillard spent any money to try to develop a new test for carcinogenicity?

ANSWER: Lorillard has spent money in developing mutagenic assays in that field, yes, we have.

QUESTION: Did you ever write Dr. Seligman back and give him your views on his proposed subjects that should be looked at and those that should be avoided?

ANSWER: As I recall, these were submitted to me as a member of a committee that was kind of asking the question as to whether the industry as a group was supporting the right kind of research in total, whether we should be perhaps changing research priorities, whether we should be perhaps thinking of new initiatives. And these were simply his suggestions that came into that committee.

Excuse me.

QUESTION: Is your recollection that you didn't write him back with any comments?

ANSWER: I don't have a recollection on that, but I doubt it.

QUESTION: Okay. Can you tell me, Dr. Spears, what outside research on smoking and health Lorillard directly sponsored, putting aside the CTR, Lorillard directly sponsored with outside researchers at universities or institutions?

ANSWER: That Lorillard directly sponsored?

Lorillard directly sponsored all of the work with Drs. Dalhamn and Rylander for a period of time that probably goes from the mid sixties up somewhere in the late seventies.

QUESTION: Okay. Anyone else?

ANSWER: We have sponsored work at a large variety, a number of consulting laboratories with respect to various -- this ingredients testing program that I mentioned.

QUESTION: All right. Anywhere else?

ANSWER: We have sponsored work at Vitel Institute in Columbus.

QUESTION: What was the subject of that work?

ANSWER: Different subjects over time. Are you okay? The --

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QUESTION: Hold on just a second, Doctor, if you would. Let's let things settle.

ANSWER: The first work that I recall at Vitel had to do with developing methods for determination of benzo[a]pyrene. This was back in the fifties, late fifties, when I first came with Lorillard, that kind of work was going on.

Consultant work with respect to treating tobacco with all kinds of potential chemical modifiers to modify the combustion process and determining whether or not it had an effect principally on the polynuclear aromatic hydrocarbons that they were measuring.

There was an earlier period when they did a lot of work that Lorillard directly supported on particle size of tobacco smoke. They were some of the very early results in

looking at the size of the particles through the aerosol and tobacco smoke.

Lorillard supported a period of research on filter materials and what they might be used to -- how they might be used to selectively remove components from tobacco smoke.

We also supported Vitel at some point in trying to develop a fiberoptic method of being able to look at ciliary activity in large intact animals. Those are the things that I remember at Vitel.

QUESTION: Okay. Anywhere else that Lorillard has directly sponsored any research on tobacco health matters?

ANSWER: Well, as I say, we have -- we have had a variety of laboratories conduct tests for us, inhalation tests in animals, and do the pathology and all of the other blood assays.

QUESTION: Any of these inhalation tests done at universities as opposed to private laboratories?

ANSWER: No, these are all private laboratories.

QUESTION: Okay. Are there any other institutions where Lorillard has supported research work on tobacco and health?

ANSWER: There may be others, but -- I think there was work at the University of Ohio before I came with Lorillard on the composition of smoke.

QUESTION: I saw some mention somewhere of a study or studies done at Harvard. Did you support any studies at Harvard?

ANSWER: Well, I thought you were asking me if Lorillard separately and independently

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supported these.
QUESTION: Directly supported. Not necessarily only but directly supported.
ANSWER: Oh, yes, of course. We -- I interpreted what you said to be only Lorillard.
QUESTION: I'm sorry.
ANSWER: And what I mentioned so far has been only Lorillard.
QUESTION: Okay. Well, let's go to directly but not necessarily only.
ANSWER: Well, Lorillard has provided support to Harvard for a program there that was basically an inhalation program in animals.
QUESTION: All right. Now, who else participated with Lorillard in funding that program?
ANSWER: I can't be a hundred percent sure, but I believe all the major tobacco companies did.
QUESTION: Okay. And what was that program?
ANSWER: Well, that was, as I said, an inhalation program that was aimed at developing the methods and assessing whether or not there was effect on the animals

through smoke inhalation.
QUESTION: Do you recall whether the Harvard work used a reference cigarette or commercial cigarettes?
ANSWER: I would think it used reference, but I don't recall that detail.
QUESTION: Did the -- Did this Harvard work produce any satisfactory scientific results, as far as you're concerned?
ANSWER: Well, it produced some publications. But, certainly, it, in my judgment, it made no major contribution to the subject. I think, you know, beyond the fact that I think the results were essentially negative.
(Whereupon the playback of the above-referenced videotape is concluded at this time.)
MR. COPLEY:
Your Honor, that concludes the deposition.
THE COURT:
All right. Well, we'll recess for the day, ladies and gentlemen. Report Monday morning at 9:30. Tomorrow is a day off. See you then. Tomorrow you're off. Report Monday morning at 9:30, okay? Have a nice weekend.
THE JURY:
You, too.
(Whereupon the jury is excused at this time.)

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THE COURT:
Let the record reflect the jury has left the courtroom.
Anything for the record by plaintiffs' counsel?
MR. MURRAY:
No, Your Honor.
THE COURT:
Defense counsel?
MR. WITTMANN:
No, Your Honor.
THE COURT:
All right. Please remember to clean up the courtroom. I expect Judge Belsome has motions tomorrow and he'll be using the courtroom, I expect.
We'll recess until 9:30 on Monday morning.
MR. SCHNEIDER:
Can I ask Your Honor a question? I think I can send over our 48-hour materials, demonstratives and exhibits, either later on today or first thing tomorrow morning.
Does it help you to have that tomorrow for Dr. Blackie on --
THE SPECIAL MASTER:
It helps me.
MR. SCHNEIDER:
So should I send it over to your office?
THE COURT:
Room 401 in this building. Room 401 is where you should send them.

MR. MURRAY:
It would help us to have those tomorrow, too.
THE COURT:
Anything else?
MR. SCHNEIDER:
I'll try to get it to Mr. Gertler early because he's leaving.
MR. LEGER:
Right. We appreciate it. Thank you.
(Whereupon the proceedings were adjourned at 3:57 o'clock p.m.)
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REPORTER'S CERTIFICATE

I, CHERYL FOURNET HUFFMAN, Registered Merit Reporter, in and for the State of Louisiana, as the officer before whom this testimony was taken, do hereby certify that this testimony was reported by me in the stenotype reporting method, was prepared and transcribed by me or under my personal direction and supervision, and is a true and correct transcript to the best of my ability and understanding; that I am not related to counsel or to the parties herein, nor am I otherwise interested in the outcome of this matter.

____

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